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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/460,960	12/14/1999	MATTHEW ZAVRACKY	0717.1128001	3174

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EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT PAPER NUMBER

2674

DATE MAILED: 07/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/460,960

Applicant(s)

ZAVRACKY ET AL.

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 and 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Examiner has been agreed with the Applicant's requirement that Group I include claims 1- 31. Therefore, this Application contains claims 1-31.
2. Claims 32-85 (Group III-X) withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7.
3. Applicant's election with traverse of Group II (Claims 21-31) in paper No. 7 is acknowledged.

The requirement is still deemed proper and is therefore made Final.

#### *Claim Rejections - 35 USC § 112*

4. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: "a first position".

#### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Jacobsen et al. Regarding claims 1-2, 14, and 18, Jacobsen et al. disclosed that a method of displaying an image comprising the steps of providing a liquid crystal display (see abstract) having a plurality of pixel electrodes (see column 6, lines 39-46); writing an image to the display such that the liquid crystal moves to an image position (see column 9, lines 56-65); flashing a light source (1111) to illuminate the display (see figures 2G and 2F), column 10, lines 52-65); and repeating the writing, flashing, and setting steps to produce a sequence of a images (see column 9, lines 15-28, and column 10, lines 20-41).
7. Regarding claims 3 and 15, Jacobsen et al. disclose that wherein the liquid crystal is an active matrix display having at least 75,000 pixel electrodes and having an active area of less than 160mm square (see claim 1).
8. Regarding claims 4 and 17, Jacobsen et al. disclose hat wherein the liquid crystal display is transmissive and the light source is a backlight (1111,see figures 2G, 2F, column 10, lines 32-35).
9. Regarding claims 5, 16 and 19, Jacobsen et al. disclose in figures 2G and 2F that wherein the light source has at least one light emitting diode (LED 1111) and the LED has an

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inherent intensity is varied dependent on ambient light (because backlights 1111 LED can be varied to adjust the intensity of the color, see column 12, lines 63-67).

Regarding claims 6-8, Jacobsen et al. disclose that the step of switching the voltage of the counter electrode after each flashing of the light source and prior to the next writing of the image (see column 11, lines 36-42), and the voltage to each pixel electrode is done sequentially starting at one corner and progressing until ending the opposite corner (see column 11, lines 51-54).

10. Regarding claims 9-13, and 20, Jacobsen et al. disclose that a method further comprising the step of waiting a setting time to allow the liquid crystal to twist between the writing of the last pixel and the flashing of the light source (see figure 21, column 12, lines 42-53) and the display is accomplished by writing a plurality of pixel electrodes simultaneously (see claim 1), and the method further comprising a process to discharge the storage capacitor of the pixel (see column 11, lines 18-30).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 21-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen et
13. Regarding claim 21, Jacobsen et al. disclose that an active matrix liquid crystal display comprising an active matrix circuit having an array of transistor circuit formed in a first plane,

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each transistor circuit being connected to a pixel electrode in an array of pixel electrodes; an integrated circuit display controller connected to the active matrix circuit, the controller including a read memory, a write memory and a timing control circuit; a counterelectrode panel extending in a second plane that is parallel to the first plane, such that the counterelectrode panel receives an applied voltage; and a liquid crystal layer interposed in a cavity between the two planes (see figure 2B, see claims 1 and 8, and see column 8, lines 25-45). However, Jacobsen et al. do not disclose an array of pixel electrodes having an area of 200mm squares or less. From the claim, it would have been obvious for Jacobsen et al.'s system to have the an array of pixel electrodes having an area of 200mm squares or less as claimed since such a modification would have involved a mere change in range of a system. Note of Jacobsen et al. disclose that an array of pixel electrodes having an area of less than 160mm (see claim 18). A change in range is generally recognized as being within the level of ordinary skill in the art.

See In re Rose, 105 USPQ 237 (CCPA 1995) and

See In re Reven, 156 USPQ 697 (CCPA 1968).

14. Regarding claims 22-31, Jacobsen et al. teach generally all the limitation as discussed in claim 21. Furthermore, Jacobsen et al. disclose the active matrix crystal display comprising circuit for setting voltage of the pixel electrodes to the voltage of the counterelectrode to each subframe (see column 12, lines 29-41); further comprising circuit to heat the liquid crystal display (see column 11, lines 66-67); a sensor interposed between the substrates to monitor a property of the liquid crystal (see figure 2F, column 11, lines 43-45, and see claim 3); and wherein the writing of the image to the display by setting the voltage to each pixel electrode is done sequentially starting at one corner and progressing until the opposite corner (see column 11,

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lines 51-45); and wherein the property that is measured is the temperture of the liquid crystal (see claim 19); Jacobsen e al. also disclose that the property that is measures is the capacitance of the liquid crystal (see column 11, lines 18-30) However, Jacobsen et al. do not disclose that wherein the array of transistor circuits are formed on an oxide layer and layer is thinned at the pixel electrodes. From the claim, it would have been obvious for Jacobsen et al.'s system to have the the array of transistor circuits are formed on an oxide layer and layer is thinned at the pixel electrodes as claimed since such a modification would have involved a mere change a material of a system. Note of Jacobsen et al. disclose that the array of transistor circuits are formed over a silicon-on an insulator (SIO) structure oxide layer and layer is thinned at the pixel.

A change in material is generally recognized as being within the level of ordinary skill in the art.

See In re Rose, 105 USPQ 237 (CCPA 1995) and

See In re Reven , 156 USPQ 697 (CCPA 1968).

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D. C. 20231

**Or faxed to:**

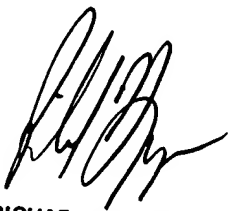
**(703) 872-9314 (for Technology Center 2600 only).**

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Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,  
Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Technology Center 2600 Customer Service Office whose telephone  
number is (703) 306-0377.

Kimnhung Nguyen  
July 1, 2002



RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600